UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

FEB 22 2002

Mr. James Houston
Environmental Compliance Manager
New Castle County Department of Special Services
187-A Old Churchmans Road
New Castle, De. 19720

Re: Pretreatment Program
NPDES No. DE0050547

Dear Mr. Houston:

I have reviewed your letter of February 8, 2002 which responded to my comments on the County's local limits reevaluation for the MOT treatment plant. Based on my review, the County's proposed local limits are acceptable. For your use, I have enclosed a copy of the "Pretreatment Monitoring Worksheet" which shows the maximum allowable headworks loadings (MAHLs) calculated in the reevaluation (with some adjustments as indicated below), and the maximum allowable headworks concentrations (MAHCs) which will be used for the evaluation of the influent data submitted in each annual report. Upon approval of the limits, these are the pollutants (with the exception of cyanide) which will be required to be included in the quarterly pretreatment monitoring required by the County's NPDES permit.

Although not impacting the acceptability of the proposed limits, I do have a few comments for your consideration in future limits reevaluations as discussed below.

The County used an allowable effluent concentration for lead of 0.05 mg/l. However, the County's NPDES permit includes a limit of 0.15 mg/l for lead. Since the allowable effluent concentration used by the County is more stringent than the NPDES limit, it is acceptable, although we would not require the use of this more stringent number. For purposes of the MAHL and the MAHC in the enclosed monitoring worksheet, I have used the NPDES limit of 0.15 mg/l. My calculations are shown in the enclosed PRELIM printout.

On June 20, 2001, the County submitted supplemental data for zinc and suggested that a removal rate of 85.7% could be used in the calculation of the zinc local limit. However, this removal rate was based on sampling at the influent and a second point prior to alum addition at the treatment plant. The removal rate used in calculating the MAHL based on water quality requirements must be calculated from sampling data collected at the influent to the treatment plant and the effluent discharge point to the receiving stream. This is because the water quality requirements apply at the point of discharge, and the removal rate must measure the pollutant change from the influent to the point of applicability of the standard.

In the February 8 submission, the County used EPA's default removal for zinc. This would be appropriate in cases where the sampling data was inconclusive for purposes of determining a removal

rate. However, the sampling data submitted by the County appears to conclusively demonstrate that the alum addition adds significant amounts of zinc and creates a situation where the "removal" of zinc through the treatment plant is at best near zero. For purposes of calculating the MAHL and MAHC in the enclosed monitoring worksheet, I used a removal of 6.7% which reflects the average influent (0.075 mg/l) and effluent (0.070 mg/l) data from the weekly sampling in your June 2001 letter. Since the use of this removal rate does not require a tightening of the local limit, the County's proposal to maintain the existing limit for zinc is acceptable. However, the data clearly shows that the alum is a significant source of zinc, and the County should replace it with a chemical that does not add such a significant pollutant loading on the system.

I also wanted to comment on the County's proposal for phosphorus. Since I had previously accepted the proposed local limit, I will accept the proposal. However, the data used in the analysis indicates a potential problem. The data in table 6 of the February submission indicates that the average phosphorus discharge is 1 mg/l, but the average phosphorus limit is 0.5 mg/l. The table also indicates that the design concentration for phosphorus for the treatment plant is 6 mg/l, while the influent concentration is 11.2 mg/l. In order to arrive at a MAHL that was not negative, the County did not use the average NPDES limit (0.05 mg/l) but rather the maximum limit (1.0 mg/l). Combined with the periodic phosphorus violations experienced at the treatment plant, although apparently not directly linked to industrial discharges, this suggests that the County may need to look at a reduction in the amount of phosphorus accepted at the treatment plant. At a minimum, the County will need to apply the proposed phosphorus local limit as a daily maximum rather than an average limit.

The County is proposing to maintain its current limit for ammonia and total phenolics, although no evaluation of the appropriateness of these limits was made. While this may be an appropriate interim measure, the County should collect the data necessary to evaluate the ammonia and phenolics limits and revise them if necessary. Since the County is maintaining these limits, they will need to be included in the quarterly pretreatment monitoring as well.

Several of the proposed local limits are less stringent than the existing limits. Because of this, the revision of the limits is considered a substantial modification under 40 CFR 403.18. This means that prior to formal approval, EPA will need to conduct a 30-day public notice of our intent to approve the limits. However, prior to the public notice, the limits must be adopted by the County and all other municipalities served by the County's treatment plant. Upon submission of the enacted ordinances demonstrating this adoption, I will be able to begin the public notice and formal approval process.

Please let me know if you disagree with any of the MAHC values in the enclosed table. If you have any questions regarding this matter, please contact me at 215-814-5790.

Sincerely,

John Lovell
Pretreatment Coordinator

Enclosures

cc: Peder Hansen, DE DNREC (w/enclosures)